

**REMARKS/ARGUMENTS**

Claims 1-25 are pending. By this Amendment, the specification, and claims 1, 7, 12, and 14 are amended, and claim 26 is canceled without prejudice or disclaimer. No new matter is added. Support for the claims can be found throughout the specification, including the original claims, and the drawings. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Entry of the amended claims is proper under 37 C.F.R. §1.116 since the amendments: (1) place the application in condition for allowance for the reasons discussed herein; (2) do not raise any new issues requiring further search and/or consideration since the amendments amplify issues previously discussed throughout prosecution without incorporating additional subject matter; (3) satisfy a requirement of form asserted in the previous Office Action; and/or (4) place the application in better form for appeal, if necessary. Entry is thus requested.

The Office Action objected to the drawings, indicating that the claimed temperature gauges claimed in claim 26 must be shown. Claim 26 has been canceled. Accordingly, the objection should be withdrawn.

The Office Action objected to claims 1, 7, 8, and 26 for informalities. Each of the Examiner's comments has been addressed in amending the claims. Accordingly, the objection should be withdrawn.

The Office Action rejected claim 1 under 35 U.S.C. §102(b) as being anticipated by Koinuma et al. (hereinafter “Koinuma”), U.S. Patent No. 4,091,252. The rejection is respectfully traversed.

Independent claim 1 recites, *inter alia*, a convection assembly mounted at one of the pair of side walls of the inner case, that transmits heat to the cooking chamber, wherein the convection assembly comprises a convection heater configured to generate heat for convection heating, and a convection fan configured to transmit the heat generated by the heater to the cooking chamber, and wherein the convection heater is positioned adjacent the convection fan. Koinuma does not disclose or suggest at least such features, or the claimed combination of independent claim 1.

That is, Koinuma discloses a microwave heating apparatus 1 that includes a heating oven chamber 3 and a magnetron 2. The magnetron 2 includes an anode cylinder 7, a plurality of vanes 8 projecting from an inner wall surface of the anode cylinder 7 toward a central axis of the anode cylinder 7, a cathode 9 disposed along the central axis of the anode cylinder 7, a permanent magnet 10 mounted above the anode cylinder 7, a yoke 11 magnetically coupled to the permanent magnet 10, and an output antenna 12 disposed below the anode cylinder 7 to permit microwave energy generated in resonance cavities among the vanes 8 to be radiated outside the magnetron 2. See, for example, Fig. 1 and column 2, lines 36-47 of Koinuma.

In contrast, the claimed features of independent claim 1 are directed to a microwave oven with a convection assembly. However, Koinuma is directed to just a microwave oven without a

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convection assembly. That is, Koinuma uses heat generated by a magnetron, not a convection assembly. Thus, Koinuma does not disclose or suggest at least the claimed convection assembly.

Further, the Office Action asserts that element 18 of Koinuma corresponds to the claimed convection assembly, that element 12 corresponds to the claimed convection heater, and that element 18 corresponds to the claimed convection fan, of independent claim 1. However, element 18 of Koinuma is disclosed as a heat stirring fan, while element 12 is disclosed as an anode 12 which is part of the magnetron 2. One of ordinary skill in the art would recognize that these features of Koinuma do not constitute a convection assembly mounted at one of the pair of side walls of the inner case, that transmits heat to the cooking chamber, wherein the convection assembly comprises a convection heater configured to generate heat for convection heating, and a convection fan configured to transmit the heat generated by the heater to the cooking chamber, and wherein the convection heater is positioned adjacent the convection fan. Rather, these features are merely part of the microwave producing assembly. Further, elements 18 and 12 are disposed at upper and side walls of an outer wall of the microwave heating apparatus 1, and not at one of the pair of side walls of an inner case. Mounting the convection assembly at one of the pair of side walls of the inner case reduces a front-to-rear width of the microwave oven, as set forth in the present application.

Accordingly, the rejection of independent claim 1 over Koinuma should be withdrawn.

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The Office Action rejected claims 1, 2, and 21-24 under 35 U.S.C. §102(b) as being anticipated by Aoyama et al. (hereinafter “Aoyama”), Japanese Patent No. JP 3-168526. The rejection is respectfully traversed.

As set forth above, independent claim 1 recites, *inter alia*, a convection assembly mounted at one of the pair of sidewalls of the inner case, that transmits heat to the cooking chamber, wherein the convection assembly comprises a convection heater configured to generate heat for convection heating, and a convection fan configured to transmit the heat generated by the heater to the cooking chamber, and wherein the convection heater is positioned adjacent the convection fan. Aoyama does not disclose or suggest at least such features, or the claimed combination of independent claim 1.

That is, Aoyama discloses an oven that includes a pair of upper and lower units 14 horizontally formed at both walls of an oven frame, detachable shelf plates 15, racks 15a provided at both ends of the plates 15, and a reciprocating unit 24 that reciprocates integrally with the racks 15a via a pinion 22 and a reversibly rotating drive motor 20. Aoyama further includes a magnetron assembly disposed adjacent a lower wall 4 of a cooking chamber 2, and a fan 9 and heater 8 disposed adjacent a rear wall of the cooking chamber 2. However, Aoyama does not disclose or suggest a convection assembly mounted at one of a pair of side walls of an inner case, as recited in independent claim 1, or the claimed combination thereof. As set forth above, mounting the convection assembly at one of the pair of side walls of the inner case reduces a front-to-rear width of the microwave oven, as set forth in the present application.

Accordingly, the rejection of independent claim 1 over Aoyama should be withdrawn. Dependent claims 2 and 21-24 are allowable over Aoyama at least for the reasons set forth above with respect to independent claim 1, from which they depend, as well as for their added features.

The Office Action rejected claims 1, 2, 6, 21-24, and 26 under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 4,332,992 to Larsen et al. (hereinafter "Larsen") in view of U.S. Patent No. 4,337,384 to Tanaka et al. (hereinafter "Tanaka"). The rejection is respectfully traversed.

As set forth above, independent claim 1 recites, *inter alia*, a convection assembly mounted at one of the pair of side walls of the inner case, that transmits heat to the cooking chamber, wherein the convection assembly comprises a convection heater configured to generate heat for convection heating, and a convection fan configured to transmit the heat generated by the heater to the cooking chamber, and wherein the convection heater is positioned adjacent the convection fan. Neither Larsen nor Tanaka disclose or suggest at least such features, or the claimed combination of independent claim 1.

That is, the Examiner asserts that Larsen discloses a convection assembly 19, 29, 21. However, the components 19, 29, 21 of Larsen are not a convection assembly but a blow assembly, since the components 19, 29, 21 do not include a heating element.

Further, Larsen discloses an air flow system for a combination microwave and convection oven that includes an oven cavity 12, an electric resistance heater 17 disposed

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adjacent a top wall of the oven cavity 12, a magnetron 18, and a dual-end blower 19 disposed adjacent a rear wall of the oven cavity 12. See Fig. 1, and column 3, lines 64-68 of Larson. Tanaka discloses a cooking appliance that includes an outer casing 1, a heating chamber 2, a door 3, a heater 15, and an air circulating fan 17 provided at a rear wall 22 of the heating chamber 2. See Fig. 1-2, and column 3, line 32-55.

Thus, both Larsen and Tanaka fail to disclose or suggest a convection assembly mounted at one of a plurality of side walls of an inner case, as recited in independent claim 1, or the claimed combination thereof. As set forth above, mounting the convection assembly at one of the pair of side walls of the inner case reduces a front-to-rear width of the microwave oven, as set forth in the present application.

Accordingly, the rejection of independent claim 1 over Larsen and Tanaka should be withdrawn. Dependent claims 2, 6, 21-24, and 26 are allowable over Larsen and Tanaka at least for the reasons set forth above with respect to independent claim 1, from which they depend, as well as for their added features.

The Office Action rejected claims 3, 4, 7-20, and 25 under 35 U.S.C. §103(a) as being obvious over Larsen in view of Tanaka, and further in view of Takeshita, Japanese Patent No. JP 5-144561. The rejection is respectfully traversed.

Dependent claims 3, 4, 7-20, and 25 are allowable over Larsen and Tanaka at least for the reasons set forth above with respect to independent claim 1, from which they depend, as well as for their added features. Takeshita fails to overcome the deficiencies of Larsen and Tanaka, as it

is merely cited for allegedly teaching the location of cooling fan, holes, and exhaust opening. Accordingly, the rejection of claims 3, 4, 7-20, and 25 over Larsen, Tanaka, and Takeshita should be withdrawn.

The Office Action rejected claim 5 under 35 U.S.C. §103(a) as being obvious over Larsen, in view of Tanaka and Takeshita, and further in view of Idomoto, Japanese Patent No. 2-244586. The rejection is respectfully traversed.

Dependent claim 5 is allowable over Larsen, Tanaka, and Takeshita at least for the reasons set forth above with respect to independent claim 1, from which it ultimately depends, as well as for its added features. Idomoto fails to overcome the deficiencies of Larsen, Tanaka, and Takeshita, as it is merely cited for allegedly teaching a tilted cooling fan. Accordingly, the rejection of claim 5 over Larsen, Tanaka, Takeshita, and Idomoto should be withdrawn.

### **CONCLUSION**

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited.

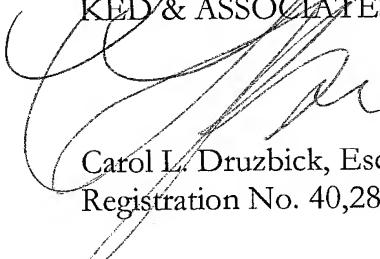
If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

Serial No. **10/575,860**  
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Docket No. **K-0800**

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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